Work Order ID 62878

Tuesday, October 12, 2010 1:04:50 PM



Page 1

Item ID:

D117-762-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Req'd Qty: 1.00 **Required Date:** 10/22/2010



Cust Item ID: Customer:

Reference:

Approvals:

Date 10-10-12 Date:

Tooling:

SPC (Y/N):

Date: Date: Run

Reject

Qty

Start Stop



Sequence ID/

Operation Description Set Up/ **Run Hours** Tool ID

Tool # Plan Code

Accept Qty

Reject Number

Insp. Stamp

Work Center ID Draw Nbr

Revision Nbr

D3582 Rev A

100

DOCUMENT CONTROL

Memo

0.00

0.00

Document Control

Photocopy bluefile & type labels per PPP D117-762-041

CHG001

CNC Bend 1

BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

CNC Delta 100 Bender

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Folio 3,

use bending aid DT9632

2- cut fwd end of tube as per dwg

W/O:			ES						
DATE	STEP	PROC	EDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector
							i		
							•		
Part No	:	PAR #:	_ Fault Ca	tegory:	NCR: Yes	No DQA	۸:	Date:	
Resolution: Disposition:			_ QA: N/C CI	osed:	·	Date: _			
NCR:		W	ORK OR	DER NON-CONFORMA	NCE (NCF	1)		· · · · · · · · · · · · · · · · · · ·	
DATE	STEP	Description of NC		Corrective Action Section		Verific		Approval	Approval
	0.2.	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section	on C	Chief Eng	QC Inspector
	<u> </u>								ļ
									·
· · · · · · · · · · · · · · · · · · ·									,
		·	' !		ļ				
2 12 12 12 12 12	ļ				* *.				
	I .		1		ı			l	1

Work Order ID 62878

Tuesday, October 12, 2010 1:04:50 PM



Page 2

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Required Date: 10/22/2010 Rea'd Otv: 1.00

Cust Item ID: **Customer:**

Reference:

					1	_
А	D	DI	٠o	va	us	:

Process Plan:

Date:

Date:

Tooling: SPC (Y/N): Date:

Date:

Run

Start Stop



Sequence ID/ **Work Center ID**

130

Skidtubes Skidtubes

Operation Description Set Un/ **Run Hours**

0.00

Tool 1D

Tool # Plan Code

Reject Accept Oty Oty

Reject

Insp. Number Stamp

BE10/10/18

Skidtubes

Memo

0.00

1-Cut Aft end using DT8185

2-Deburr ends

3-Drill Aft Cap holes using DT8678 ***DO NOT OPEN AFT CAP HOLE***

4-Locate DT 8973 & Drill Ground wire hole on top of Tube.

5-Install 3/16 cleco in Ground wire hole, then drill all X-Bolt holes using 3/16" drill.

6-Drill pilot holes for wearplates using DT8974

7-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3582.

8- open ground wear holes to 0.391" as per section B-B

9-Open Aft Cap holes using .209" drill.

10-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

Dart Ae	rospace	e Ltd						× .			
W/O:			W	ORK ORDER CHANGE	S						
DATE	DATE STEP PRO		OCEDURE CHANGE		Ву	Date Qty	Approvat Chief Eng / Prod Mgr	Approval QC Inspector			
					ļ						
			400								
		,					,				
				4444		.					
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	lo DQA:	Date: _				
Mary Control	R	esolution:	Dispositio	n:	QA: N/C Clo	sed:	Date: _				
NCR:	1 (i) 14 .	1	WORK ORD	ER NON-CONFORMA	NCE (NCR)						
		Description of NC		Corrective Action Section	n B	Verification	Approval	Approval			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector			
		,						:			
		,		**.			-				

Work Order ID 62878

Tuesday, October 12, 2010 1:04:50 PM



Page 3

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Oty: 1.00

Required Date: 10/22/2010

Reg'd Oty: 1.00



Date: _____

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Operation

Description

Date:

Tooling:

0.00

SPC (Y/N):

Set Up/

Run Hours

Date:

Date:

Tool # Plan

Code

Run

Accept

Otv

Start Stop

Reject

Qty

Number Stamp

Insp.

Sequence ID/

Work Center ID 140

Skidtubes

Skidtubes

Skidtubes

Memo

2-Grind flush

1-Weld fwd cap D2964 per dwg D3582 and OSI 064 A/R AL ROD Batch: <u>M | 15776 | M | 11385</u>

150

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

Reject

160

QC5- Inspect part completeness to step on W/O

0.00

Quality Control

Memo

0.00

										
W/O:			WORK ORDER CHANGES							
DATE	STEP	PRO	PROCEDURE CHANGE			Date	Qty	Approvat Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	·	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date: _		
Resolution:		Disposition: QA		_ QA: N/C C	QA: N/C Closed: Date:					
NCR:			WORK ORD	ER NON-CONFORMA	NCE (NC	R)				
DATE	STEP	Description of NC			tion B Verific		cation Approval		Approvai	
DAIL	JILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	Secti	on C	Chief Eng	QC Inspector	
						,				
				·						

Work Order ID 62878

Tuesday, October 12, 2010 1:04:50 PM



Page 4

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Required Date: 10/22/2010

Req'd Qty: 1.00

Date:_____

Cust Item ID: Customer:

Reference:

Approvals:

Process Plan:

Date: Tooling:

SPC (Y/N):

Date:

Date:

Start

Stop



Sequence ID/ **Work Center ID**

170

HandFinish

Hand Finishing

Operation Description

Chemical Conversion Coat per QSI005 4.1

Set Up/ **Run Hours**

0.00

0.00

104778 A. 1.1

Tool ID

Tool # Plan Code Qty

Reject Accept Qty

Run

Reject Number

Insp. Stamp

180

QC

Quality Control

QC3- Inspect Part Finish

Memo

Memo

0.00

0.00

Dart	Aero:	space	Ltd
		Space	

W/O:		WORK ORDER CHAI					
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approvat Chief Eng / Prod Mgr	Approval QC Inspector
*,·.							
				·			
							÷ .
Part No	:	PAR #: Fault Category:	NCR: Yes	No DQ	A:	Date:	

	R	esolution:	Disposition	I	QA: N/C Clos	sed:	Date: _	
NCR:	,	\	WORK ORDE	R NON-CONFORMAN	CE (NCR)	y ,		j.
		Description of NC		Corrective Action Section	В	Verification	Annroyal	Annexa
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approva QC Inspecto
		,			8.00			
150								
			·					
		The specific section of the sp		***				
						40 90		
\								
							120	
	1 2 2				· c		Line.	
							,	!
						gan N. *		
								*

Work	Order ID	62878
Tuesday,	October 12, 201	10 1:04:50 PM
Item ID:	D117-76	52-041
Revision	ID:	

Accept



Setup Start



Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Required Date: 10/22/2010 Req'd Qty: 1.00



Cust Item ID: Customer:

Refe	ren	ce:
IXCIC	1 (1)	···

		_
Ap	prov	als:

Process Plan:

Date: Date:_____

Tooling:

SPC (Y/N):

0.00

0.00

Date:

Date:

Start

Stop



Stop

Sequence ID/ Work Center ID

190

Skidtubes Skidtubes

Description

Operation

Set Up/ **Run Hours** Tool ID

Tool # Plan

Accept Qty Code

Reject Oty

Run

Reject Number

Insp. Stamp

Skidtubes

Memo

1-Open X-Bolt holes to finish size as per Dwg D3582, all sections

2-Counter Sink X-BOLT holes as per Dwg D3582

3-Deburr and blow out chips from inside of tube, prep. tube for welding.

4-Bond web as per Dwg D3582 & QSI 015 A/R 241 Sike Flex Batch: Exp Date: \\

5-Weld x-bolt spacers(D2973) as per Dwg-D3582 section B-B. A/R AL ROD Batch:

6-Grind welds flush

10-10-20

200

QC10- Inspect visual per OSI004- ground welds

Quality Control

Memo

Dart Aerospa	ice Ltd
--------------	---------

Duit Ac	ospace	Liu							
W/O:			WO	RK ORDER CHANGI	ES				
DATE STEP		PRO	PROCEDURE CHANGE			Date	Qty	Approval ^o Chief Eng / Prod Mgr	Approval QC Inspector
							3		
									
Part No:		PAR #:	Fault Categ	jory:	NCR: Yes	No DQA	l:	Date:	
Resolution:		Disposition):	QA: N/C Cld	sed:	· · · · · ·	Date:		
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCR)			
		Description of NC		Corrective Action Section		Verific	Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section		Chief Eng	QC Inspector
								·	
				•					
i						,			

Work Order ID 62878

Tuesday, October 12, 2010 1:04:50 PM



Page 6

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Required Date: 10/22/2010

Req'd Qty: 1.00



Cust Item ID: **Customer:**

Reference:

Approvals:

Process Plan:

Date:_____

Date:

Tooling:

SPC (Y/N):

Date:

Run

Stop



Sequence ID/ **Work Center ID**

210

Quality Control

Operation Description

QC5- Inspect part completeness to step on W/O

Set Up/ **Run Hours**

Tool ID

Date:

Tool # Plan Code

Accept **Qty**

Reject Oty

Reject Number

Insp. Stamp

215

HandFinish

Hand Finishing

Pressure Wash per OSI005 4.3

Memo

0.00

Memo

0.00

D - Jef 10-10-28.

220

Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

0.00

1 Kl 10-10-28.

Dart Aerospa	ace	Ltd
--------------	-----	-----

w/o: 62	2878	WORK ORDER CHANGES			*		
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval ^a Chief Eng / Prod Mgr	Approval QC Inspector
10-10-08	4	ADD D PRESS WHOH SEQUENCE, PELMHNENT CHUNGE (DONE ON W/O 62877)	BH	10-10-33	•		

Part No: 117-762-041	PAR #: Fault Category:	NCR: Yes No DQA:	_ Date:
Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR:		,	WORK ORDE	ER NON-CONFORMANO	E (NCR)			
		Description of NC		Corrective Action Section B				Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	QC Inspector
							•	
						,		

Wo	rk	Ore	der	ID	6287	78
7 7 W	1 1	.,,		11/	1120	40.

Tuesday, October 12, 2010 1:04:50 PM



Page 7

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Required Date: 10/22/2010 Req'd Qty: 1.00

Cust Item ID: Customer:

Reference:

А	aa	ro	val	s:

Process Plan:

Date:_____ Tooling:

Date:_____ SPC (Y/N): Date:

Tool # Plan

Code

Date:

Run Start

Reject

Qty

Stop

Number Stamp

Insp.

Sequence ID/ Work Center ID

230

Quality Control

Operation Description

QC3- Inspect Part Finish

Memo

Set Up/ **Run Hours**

10/10/28

Tool ID

Accept

Qty

Reject

240

HandFinish Hand Finishing HandFinishing

Memo

0.00

0.00

10/10/28

Install Wearplate & Ground Wire inserts as per Dwg D3582.

W/O:		WORK ORDER CHANGES							
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	•	PAR #:	Fault Cate	egory:	NCR: Yes No DQA: Date:				
Resolution:			Disposition	Disposition: QA: N/C Closed:					
NCR:			WORK ORD	ER NON-CONFORMAN	NCE (NCI	₹)			
DATE	STEP	Description of NC	Initial Action Description			Verific		Approval	Approval
····		Section A	Chief Eng	Chief Eng	Sign Date		on C	Chief Eng	QC Inspector
					ŀ				
									<u> </u>
<u> </u>							<u>.</u>		
		·							

Tuesday, October 12, 2010 1:04:50 PM

Item ID:

D117-762-041

Accept



Setup Start

Stop

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Req'd Qty: 1.00 **Required Date:** 10/22/2010



Cust Item ID: Customer:

Reference:

Δ	nn	rov	ale.	

Process Plan:

Date: Tooling:

0.00

0.00

Date:

Start Run

Reject

Qty



Date:

SPC (Y/N):

Set Up/

Run Hours

Date:

10/10/29

Tool ID

Tool # Plan Code

Accept Qty

Reject Number Stamp

Insp.

Sequence ID/ Work Center ID

250



HandFinish

Hand Finishing

Operation Description

HandFinishing

Memo Inspect for Foreign objects

2-Install Aft cap as per Dwg D3582, Detail "C" A/R 241 Sika Flex Batch: AAIIS// Exp Date: ///O/

3-Install Wearplates as per Dwg D3582,

Note:Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582

******Do not install bolts where indicated on Dwg(Note #6)***** A/R 241 Sika Flex Batch: 入八 115/14 Exp Date: 11/0

4-assemble o'ring as per dwg D3492 and apply o'ring lube (A/R 55-o'ring lube batch: 1/1) of all 189

5- Wing Walk as per Dwg D3043 and QSI 005 4.4 = /4115 790

260

QC5- Inspect part completeness to step on W/O

Memo

Quality Control

	Da	rt	Aeı	ros	pa	се	Ltd
--	----	----	-----	-----	----	----	-----

D uit 710	oopaoo								
W/O:			WORK ORDER CHANGES						
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

								·	
Part No		DAD #-	Fault Cata	14000-000-000-000-000-000-000-000-000-00	NOD: Vac	N- 20	<u> </u>	Data	
			Fault Category: Disposition:						
NCR:				ER NON-CONFORM					
DATE	STEP	Description of NC	Corrective Action		tion B	Verification		Approval	Approval
DAIL	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	k Sect	ion C	Chief Eng	QC Inspector
									Live store and
						1		,	
	1				. [1	I

Work Order ID 62878

Required Date: 10/22/2010

Tuesday, October 12, 2010 1:04:50 PM



Page 9

Item ID:

D117-762-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/12/2010

Start Qty: 1.00

Req'd Qty: 1.00



Identify and pack for shipping as per PPP D117-762-041

Cust Item ID: Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Date:

Start

Stop



Sequence ID/ Work Center ID

270

Packaging

Packaging

Operation Description

Packaging

Set Up/ Run Hours

SPC (Y/N):

0.00

Tool ID

Tool # Plan Code Accept Qty

Reject Oty

Reject Insp. Number Stamp

280

QC21- Final Inspection - Work Order Release

Location: PPP Rev:_

QC: Date:

0.00

Quality Control

Memo

0.00

Dart	Aeros	pace	Ltd
- 41 +	, 10, 00	Puv	

	•							4		
W/O:			WC	RK ORDER CHANG	ES					
DATE	STEP	PRO	CEDURE CHAI	NGE	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	<u>-</u>									
Part No: PAR #: Fault Category: NCR: Yes No DQA:							_ Date: _			
Resolution: Disposition: QA: N/C Closed:						Date:				
NCR:		\	WORK ORDI	ER NON-CONFORMA	NCE (N	CR)				,
DATE	STEP	Description of NC	Corrective Action Section B			Veritica		ation	Approval	Approval
DAIL	SILI	Section A	Initial Chief Eng			gn & Section C Date		on C	Chief Eng	QC Inspector
								!		
						<u> </u>				
·										
	1	I .	i l		ı		1		1	1

Picklist Print

Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878

Parent Item:

D117-762-041

Parent Item Name: Replacement Skidtube



Start Date: 10/12/2010

Required Date: 10/22/2010

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:A□07.06.11□New Issue□ EC

I	PP Rev:B 08-02	-22 change to re	vA as p	per dwg DD	verified by:EC								
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2962-150 3.540 Outer Tube, Extrut	1881 8111 8811 1881	Manufactured	No			-	Each	100.0000		1			
				Location HALL	28672 59934	<u>Loc</u>	Oty 100 27 73	Loc Code	(0		0,0	-10-18
D2964		Manufactured	No		3993 4	140	Each	19.0000	1	1			
D2971		Manufactured	No	<u>Location</u> LG	14101	<u>Loc</u> 190	<mark>Qty</mark> 19 19 Each	Loc Code 27.0000	- 1 }	1	- - B	E 10-1	1-19.
Cross Bolt Spacer D3584-1		Manufactured	No	Location LG	44445	<u>Loc</u> 190	Oty 27 27 Each	Loc Code 0.0000	- - 1		SC	10/10/1	25
Web				P	62384							<u></u>	-

Dart Ae	rospace	Ltd							
W/O:			V	ORK ORDER CHANGES					
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
•	4								
Part No	:	PAR #:	Fault Ca	tegory: N	ICR: Yes	No DQ	A:	Date: _	
	Re	esolution:	Disposit	ion: (A: N/C C	Closed:		Date: _	
NCR:		\	WORK OR	DER NON-CONFORMAN	CE (NC	R)			
		Description of NC		Corrective Action Section B	<u> </u>	Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sec	tion C	Chief Eng	QC Inspector
			·						

Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878 Parent Item:

D117-762-041

Parent Item Name: Replacement Skidtube

Start Date: 10/12/2010

Required Date: 10/22/2010

Start Qty: 1.00

Required Qty: 1.00

D2973

Cross Bolt Spacer

Manufactured

190

Each

162.0000

2

2

D3662-3

Manufactured

Manufactured

Location Loc Qty LG 162 162 14636 Each 190

27.0000

Loc Code

Crossbolt Spacer

LG

No

Location Loc Qty 27 44456 27 190 Each

Loc Code

Crossbolt Spacer

D3662-1

No

55328

Location

LG

Loc Oty 19 19 240 Each

Loc Code

19.0000

1.047.000 36

ALS4-1032-130 Purchased

Insert

Location Loc Qty Loc Code PKG11 998 114723 998 ST282 1115911 10 110511 10 ST381 39 114654 39

	•								_
W/O:			WC	RK ORDER CHANG	GES				·
DATE	STEP	PR	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						,			
							ļ		r
									
								;	·
Part No		PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date: _	
	Res	olution:	Disposition	n:	QA: N/C C	losed:		Date: _	<u>.</u>
NCR:			WORK ORDI	ER NON-CONFORM	ANCE (NC	R)			
DATE	STEP	Description of NC Corrective Action			tion B	Verifi	cation	Ápprovai	Approval
DAIL	JILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date		tion C	Chief Eng	QC Inspector
									:
					-				
	1		1 1		i	1		1	

Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878 Parent Item: D117-762-041 Parent Item Name: Replacement Skidtube Start Date: 10/12/2010 **Required Date: 10/22/2010** Start Qty: 1.00 Required Qty: 1.00 ALS4-428-165 No Purchased 240 Each 107.0000 2 Inserts Location Loc Qty Loc Code FP 6989 7 ST282 100 114172 100 D2965 Manufactured No 250 Each 42.0000 Cap, 105 Skidtube Location Loc Oty Loc Code FP4 42 52057 42 D3508-3 Manufactured 250 No Each 2.0000 Wearplate Location Loc Oty Loc Code FP 342882 38527 FP21 55339 D3508-9 Manufactured No 250 4.0000 Each Wearplate Location Loc Qty Loc Code FP21 _54580

W/O:			WC	RK ORDER CHANGI	ES				
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
-va									
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQA:	Date: _		
	Res	olution:	on: QA: N/C Closed:						
NCR:			WORK ORDI	ER NON-CONFORMA	NCE (NCR)				
DATE	STEP	Description of NC Corrective Action			on B	Verification	Approvai	Approval	
DAIL	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector	
					ŀ				
						,			
							1	1	

Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878 Parent Item: D117-762-041 Parent Item Name: Replacement Skidtube **Start Date:** 10/12/2010 **Required Date: 10/22/2010** Start Qty: 1.00 Required Qty: 1.00 D3558-3 Manufactured No 250 Each 13.0000 10/10/25 Gasket Location Loc Qty Loc Code FP 13 42253 1 55468 12 D3558-9 Manufactured No 250 Each 18.0000 Gasket Location Loc Oty Loc Code FP 18 50928 4 55469 14 D3558-11 Manufactured No 250 Each 3.0000 Gasket Location Loc Qty Loc Code FP 3 3 42254 D3558-13 Manufactured No 250 Each 35.0000 Gasket Location Loc Qty Loc Code FP 35 55467 -- 59558 34

			10/4	DOL ODDED OLIANO	<u> </u>					
W/O:			VV	ORK ORDER CHANG	ES					
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	D	ate	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
				14914						
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Ye	s No	DQ	4 :	_ Date: _	
	R	esolution:	Disposition	n:	_ QA: N/C	Close	ed:		Date: _	
NCR:		1	WORK ORD	ER NON-CONFORMA	ANCE (NO	CR)				
DATE	CTED	Description of NC	Corrective Action Section B			: VA*ITI/			Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sig Da	n &	Secti		Chief Eng	QC Inspector
`										
· <u></u>										
						1				

Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878 Parent Item: D117-762-041 Parent Item Name: Replacement Skidtube **Start Date:** 10/12/2010 **Required Date: 10/22/2010** Start Qty: 1.00 Required Qty: 1.00 D3508-11 Manufactured No 250 Each 12.0000 Al 10/10/20 Wearplate Location Loc Qty Loc Code FP16 12 12 54644 D3508-13 250 Each 3.0000 Manufactured No 10110128 Wearplate Location Loc Qty Loc Code FP 54645 3 D3492-051 250 Each Manufactured No 54.0000 2 10/10/28 Plug Assembly Location Loc Qty Loc Code FP013 54 44633 4 50 55622 D3492-049 No 250 Each 29.0000 2 Manufactured 10/0/28 Plug Assembly Location Loc Oty Loc Code FP011 29 29 55621_ D3492-053 250 19.0000 Manufactured No Each 6 10/10/28 Plug Assembly Location Loc Qty Loc Code FP 19 54641 19 Page 5

W/O:			W	ORK ORDER CHANG	SES				
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
 -								Ргоа мдг	
							-	<u> </u>	
									•
		The World Physics							
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQ	A:	Date:	
	Re	esolution:	Dispositio	n:	QA: N/C CI	osed:		Date: _	
NCR:			WORK ORD	ER NON-CONFORM	ANCE (NCR	1)			
DATE	CTED	Description of NC		tion B	Verifi	cation	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date		ion C	Chief Eng	QC Inspector
							ŧ		
						,			
	1								

Picklist Print
Tuesday, October 12, 2010 1:04:54 PM

Work Order ID: 62878 Parent Item: D117-762-041			0 (1881 1891 1888 1891 1896 I 1888 1889 1889 1881 1888 1888 1888 188		II				
Parent Item Name: Replacement Skidtu	be		N 118861 11811 1881 118811 18818 81118 1181 1181		II I			10/12/2010	Required Date: 10/22/2010
		•				S	tart Qty:	1.00	Required Qty: 1.00
AN960JD10L NAS1149D0332J 	Purchased	No		250	Each NN1143	0.0000 SUB	2	2 X2 H	10/10/28
AN3C4A 	Purchased	No		250	Each	1,511.000	28	28 H 10	16 128
			Location	Le	oc Oty	Loc Code			
AN3C5A	Purchased	No	ST245 110139 ST303 115438 ST350 114108 114416 114523 115300 115589	20 20 3 3 1488 14 12 2 460 1000 250 Each		1,169.000 2		x28	140128
Bolt			Location	La	oc Qty	Loc Code			
			ST350		1159				
			114330		11				
			115015		16				
			115371		100				
			115422		100				
			115594 115835		432 500			YL	
			ST351		10				

Dart Ae	rospace	e Ltd							
W/O:	-	771	W	ORK ORDER CHANGE	S				
DATE	STEP	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						· · · · · · · · · · · · · · · · · · ·			
Part No	•	PAR #:	Fault Cate	egory:	NCR: Yes	No DQ	A:	Date: _	
	R	esolution:	Disposition	on:	QA: N/C C	losed:		Date: _	
NCR:				ER NON-CONFORMA					
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section Action Description Chief Eng	Sign Date	& Sect	cation ion C	Approval Chief Eng	Approval QC inspector
							:		

Tuesday, October 12, 2010 1:04:54 PM

Shop Packet Print

101

108673 113845

Page 7

W/O:			W	ORK ORDER CHANGE	S				
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							3	Prod Mgr	
						1			
						:			
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Yes	s No DO	QA:	Date: _	· -
	R	esolution:	: Disposition: QA:						
NCR:		V	VORK OR	DER NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC		Corrective Action Section			ication	Approval	Approval
DAIL	SILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat		tion C	Chief Eng	QC Inspector
								<u> </u>	
				•					
						,			
					1				

Picklist Print

Tuesday, October 12, 2010 1:04:54 PM

Page 8

Work Order ID: 62878

Parent Item:

D117-762-041

Parent Item Name: Replacement Skidtube



Start Date: 10/12/2010

Required Date: 10/22/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-015

NAS1611-016

O-RING

Purchased

Purchased

No

250

Each

25.0000

Loc Code

10/16/28

N.	^	

Location	Ţ	oc Oty
FP		25
107178		5
115101		20
	250	Each

10h0(128

O-RING

Location	Loc Oty
FP	109
107178	9
112492	50
113524	50

Loc Code

109.0000

Duitho	Oopao	J(G									, d
W/O:				WORK ORDER CHANGES							
DATE	STEP		PRO	OCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
											~ .
3.5			- 100					S.		•	
¥											
Part No): <u> </u>		PAR #:	Fault Category: _		_ NCR	l: Yes	No DQ	\ :	_ Date: _	
•	R	lesolution:		Disposition:		_ QA:	N/C C	losed:		Date: _	

NCR: WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section B		Verification	Ammuoval	A
DATE	STEP	Section A	Initial Chief Eng	Initial Action Description Sign &		Section C	Approval Chief Eng	Approval QC Inspector
								-
		*						
				· v.				
		•						,
		•						
						<u>'</u>		1
	,							

PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

Qty	Part Number	Description
Х	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1.	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1_	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

GENERAL NOTES:

g T

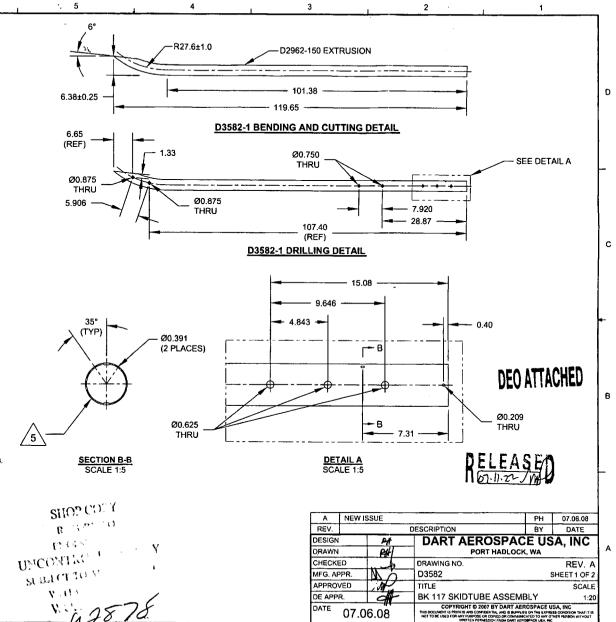
- ALL DIMENSIONS ARE IN INCHES
 TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 WELDING TO BE DONE PER DART QSI 004.
- 4) INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 5) USE DATT DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- 6) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.

8

В

- A) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING
- B) POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART OSI 005.4.3.
- C) ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI

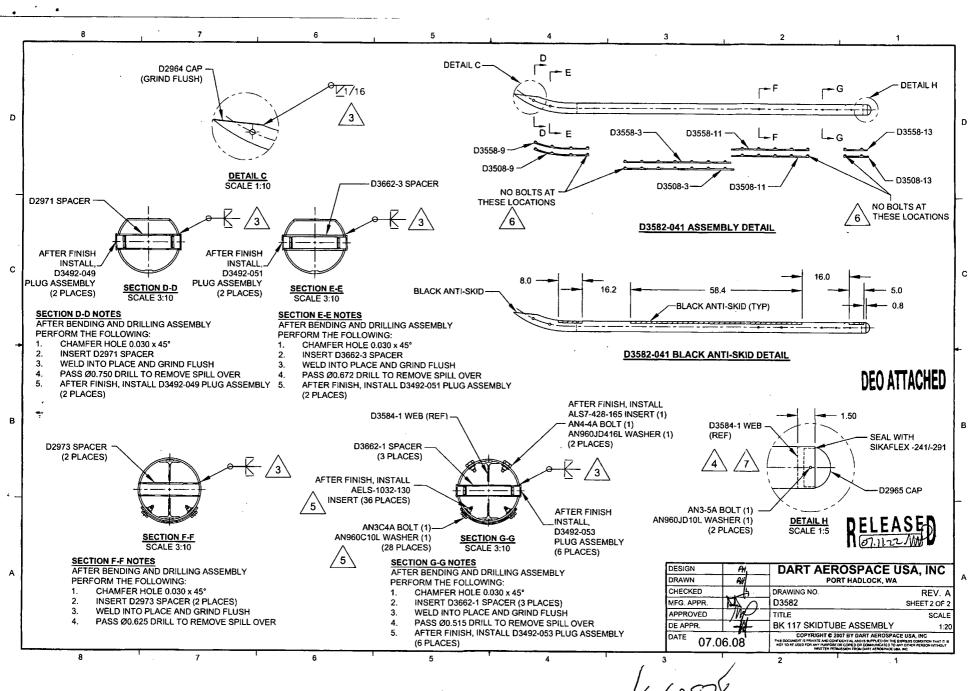
6



3

2

W/O:		WORK ORDER CHANGES									
DATE	STEP	PRC	CEDURE CH	ANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
,					· .				. rou mgi		
										٠,	
										, st.	
Part No		PAR #:	Fault Cat	Fault Category: NCR: Yes No DQA:				۸:	Date:		
Resolution: Dispo										•	
NCR:		V	WORK ORE	DER NON-CONFO	RMANCE	(NCR)					
DATE	STEP	Description of NC Corrective Action			Section B	Verification				Approval	
DAIL	SILF	Section A	Initial Chief Eng	Action Descript Chief Eng	tion	Sign & Date	Section	on C	Chief Eng	QC Inspector	
		·								i	
									# ·		
							,				
										:	



Dart A	Aero:	space	Ltd
--------	-------	-------	-----

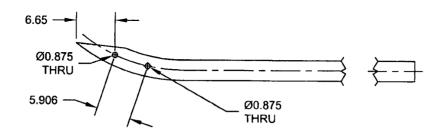
	oopaoo .	-·u							_
W/O:			WO	RK ORDER CHANGI	ES				
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty 📙 🤈	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							,		
			1941-1141-1-114						
Part No:		PAR #:	Fault Cate	gory:	NCR: Yes	No DQA :		Date:	
Resolution:			Disposition	n:	QA: N/C CI	osed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCF	R)			
D.4.7.F		Description of NC	Corrective Action S		on B	Verificat	tion 4	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section		Chief Eng	QC Inspector
								٠	
									gi
									÷ .
								1	
							1	***************************************	,
								200	
								- Q	
l									

DRAWING	NO. TITLE	, REV.	A DART AEROSPACE US	A, INC D.E.O. NO.	SHEET NO.	SCALE
D3582	BK 117 SKI	DTUBE ASSEMBLY	ENGINEERING ORD	DS582-A-1	SHEET 1 OF 1	NTS
DRAWN	PH	CHECKED	MFG. APPR.	APPROVED (AN)	DE APPR.	
DATE	09.04.06	DATE 64.04.06	DATE 09.04.06	DATE 19104/Dh	DATE 09.04.00	6

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR: UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:

1₂,



COPYRIGHT © 2009 BY DART AEROSPACE USA, INC

THIS DOCUMENT IS PRIVATE AND COMPRIDENTIAL. AND IS SUPPLIED ON THE EXPRESS COMMITTION THAT IT IS NOT TO BE USED FOR ANY PURPOS ON COMPLED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION PROM DATE RECORDANCE USE. IN

D	art	A	er	os	pa	ce	Ltd
---	-----	---	----	----	----	----	-----

W/O:		WORK ORDER CHA	WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
Part No):	PAR #: Fault Category:	NCR: Yes	No DQ	 А :	Date:				

Resolution: _____ Disposition: _____ QA: N/C Closed: ____ Date: ___

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B	2 *	Verification	Approval				
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector			
		N _c									
		· \									
		·.				,					
		·									
	•			•							
		·									

NO. 220	NO.	220	
---------	-----	-----	--

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Barday Ellistt	
Job number: 54161	
Part number: Dil) - 762-041	
Description: 117 - x.d tube	
Welding Process: Tig[/] Mig[]	_
Base materiel: Aluminum	
Current: AC[\(\sigma\)] DC[]	

TEST REQUIREMENTS AND RESULTS

Visual: Penetration:	pass[√] pass[√]	fail[] fail[]
<u>UNACCEPTABLE</u>		
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] pass[] pass[] pass[] pass[] pass[]	fail[] fail[] fail[] fail[] fail[]
Qualifier 101) Welder Barlay Edliots		est Coupon <u>09/12/10</u>

The above named individual is qualified in accordance with AWS D17.1.2001 to weld